

PROTEASE-ACTIVATED RECEPTOR 3 AND USES THEREOF

Abstract of the Disclosure

Disclosed are cDNAs and genomic DNAs encoding
5 protease-activated receptor 3 (PAR3) from mouse and
human, and the recombinant polypeptides expressed from
such cDNAs. The recombinant receptor polypeptides,
receptor fragments and analogs expressed on the surface
of cells are used in methods of screening candidate
10 compounds for their ability to act as agonists or
antagonists to the effects of interaction between
thrombin and PAR3. Agonists are used as therapeutics to
treat wounds, thrombosis, atherosclerosis, restenosis,
inflammation, and other thrombin-activated disorders.
15 Antagonists are used as therapeutics to control blood
coagulation and thereby treating heart attack and stroke.
Antagonists mediate inflammatory and proliferative
responses to injury as occur in normal wound healing and
variety of diseases including atherosclerosis,
20 restenosis, pulmonary inflammation (ARDS) and
glomerulosclerosis. Antibodies specific for a protease-
activated receptor 3 (or receptor fragment or analog) and
their use as a therapeutic are also disclosed.